

WHAT IS CLAIMED IS:

1 1. An apparatus for use in managing the cost of a business process, comprising:
2 means for receiving a discontinuous cost function that describes the costs associated
3 with the business process as a function of one or more operational parameters;
4 means for finding the minimum cost point of the cost function, including
5 means for dividing the cost function into continuous sections,
6 means for calculating the point of minimum cost for each section, and
7 means for selecting the point of minimum cost having the lowest value; and
8 means for applying to the business process the operational parameters corresponding
9 to the selected point of minimum cost.

1 2. The apparatus of claim 1, wherein means for calculating comprises:
2 means for choosing a plurality of control points for each section; and
3 means for generating one or more approximations for each section based on the
4 control points in that section.

1 3. The apparatus of claim 2, wherein means for generating comprises:
2 means for selecting sets of the control points; and
3 means for generating one of the one or more approximations for each set of control
4 points.

1 4. The apparatus of claim 3, wherein means for calculating the point of
2 minimum cost for each approximation comprises:
3 means for finding a point of zero slope on the approximation.

1 5. The apparatus of claim 4, wherein means for generating one of the one or
2 more approximations comprises:
3 means for calculating an interpolation function based on the control points.

1 6. A method for use in managing the cost of a business process, comprising:

2 receiving a discontinuous cost function that describes the costs associated with the
3 business process as a function of one or more operational parameters;
4 finding the minimum cost point of the cost function, including
5 dividing the cost function into continuous sections,
6 calculating the point of minimum cost for each section, and
7 selecting the point of minimum cost having the lowest value; and
8 applying to the business process the operational parameters corresponding to the
9 selected point of minimum cost.

1 7. The method of claim 6, wherein calculating comprises:
2 choosing a plurality of control points for each section; and
3 generating one or more approximations for each section based on the control points in
4 that section.

1 8. The method of claim 7, wherein generating comprises:
2 selecting sets of the control points; and
3 generating one of the one or more approximations for each set of control points.

1 9. The method of claim 8, wherein calculating the point of minimum cost for
2 each approximation comprises:
3 finding a point of zero slope on the approximation.

1 10. The method of claim 9, wherein generating one of the one or more
2 approximations comprises:
3 calculating an interpolation function based on the control points.

1 11. A computer program product, tangibly stored on a computer-readable
2 medium, for use in managing the cost of a business process, comprising instructions operable
3 to cause a programmable processor to:
4 receive a discontinuous cost function that describes the costs associated with the
5 business process as a function of one or more operational parameters;
6 find the minimum cost point of the cost function, including

7 divide the cost function into continuous sections,
8 calculate the point of minimum cost for each section, and
9 select the point of minimum cost having the lowest value; and
10 apply to the business process the operational parameters corresponding to the selected
11 point of minimum cost.

1 12. The computer program product of claim 11, wherein instructions operable to
2 cause a programmable processor to calculate comprise instructions operable to cause a
3 programmable processor to:
4 choosing a plurality of control points for each section; and
5 generating one or more approximations for each section based on the control points in
6 that section.

1 13. The computer program product of claim 12, wherein instructions operable to
2 cause a programmable processor to generating comprise instructions operable to cause a
3 programmable processor to:
4 select sets of the control points; and
5 generate one of the one or more approximations for each set of control points.

1 14. The computer program product of claim 13, wherein instructions operable to
2 cause a programmable processor to calculate the point of minimum cost for each
3 approximation comprise instructions operable to cause a programmable processor to:
4 find a point of zero slope on the approximation.

1 15. The computer program product of claim 14, wherein instructions operable to
2 cause a programmable processor to generate one of the one or more approximations comprise
3 instructions operable to cause a programmable processor to:
4 calculate an interpolation function based on the control points.